

**Claims:**

1. (Currently amended) An implantable surgical drain to be placed against ~~a~~at least one tissue within of a patient's body for draining fluid and sensing at least one physiological property of the tissue comprising:
  - a) an elongated conduit housing configured to be implanted in ~~a~~the patient's body and to rest against a substantial length of the ~~a~~first tissue within of the body, and to drain wound fluid from the body, the elongated conduit including comprising:
    - i. a first and a second surface on an outer side and along the length of the elongated conduit;
    - ii. a plurality of drain openings in the first and the second surface positioned along substantially the entire length of the elongated conduit, configured to drain wound fluid from the body;
    - iii. a first and a second drain lumen positioned within the elongated conduit housing in fluid communication with the plurality of the drain openings;
    - iv. at least one sensing element positioned ~~on~~along the first surface in proximity to the drain openings, of the elongated conduit configured to sense a physiological property of the first tissue; and
    - v. ~~an~~ at least one inflatable compartment positioned within the elongated conduit housing, between the first and the second drain lumens, positioned behind the at least one sensing element,

configured when inflated to push the at least one sensing element in a substantially orthogonal direction with respect to the first surface against the first tissue so as to enhance contact between the sensing element and the first tissue; and

- b) a tube in fluid communication with the first and the second drain lumens configured to transport the drained wound fluid out of the body.

2-3. (Cancelled).

4. (Currently amended) The surgical drain of claim 1, wherein the at least one sensing element and the at least one inflatable compartment are positioned at about the same position along the length of the surgical drain.

5. (Original) The surgical drain of claim 1, wherein the physiological property is selected from the group comprising: oxygenation, perfusion, temperature, pH, NADH levels, biochemical composition, drug concentration, turgidity or pressure.

6. (Previously presented) The surgical drain of claim 1, further comprising multiple sensing elements configured to sense different physiological properties.

7. (Cancelled).

8. (Currently amended) The surgical drain of claim 1, further including a display configured to depict data corresponding to the physiological property sensed by the at least one sensing element.
9. (Currently amended) The surgical drain of claim 1, further comprising a pump in communication with an interior portion of the at least one inflatable compartment.
10. (Currently amended) The surgical drain of claim 1, further comprising a pressure monitor in communication with the interior portion of the at least one inflatable chamber compartment.
11. (Currently amended) The surgical drain of claim 1, wherein the surgical drain further includes an anchor configured to stabilize the position of the surgical drain relative to the first tissue in the body.
12. (Previously presented) The surgical drain of claim 1, wherein the surgical drain further includes a projection extending from the outer side, wherein the projection is configured for insertion into tissue in the body.

13. (Original) The surgical drain of claim 1, wherein the surgical drain further includes a first loop extending from the outer side.

14. (Original) The surgical drain of claim 1, wherein the surgical drain further includes adhesive on at least a portion of the outer side.

15. (Original) The surgical drain of claim 1, wherein the surgical drain further includes a flap extending from the outer side.

16-102. (Cancelled).

103. (New) The surgical drain of claim 1, further comprising a second sensing element configured to sense the same physiological property of a different second tissue.

104. (New) The surgical drain of claim 103, wherein the at least one inflatable compartment is positioned behind the first and the second sensing elements and is configured to simultaneously push the first and the second sensing elements against the first and the second tissue, respectively.

105. (New) The surgical drain of claim 1, wherein the inflatable compartment is configured to simultaneously push against a different second tissue while pushing the sensing element against the first tissue.